

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing requested amendments and in view of the reasons that follow. Applicant respectfully asserts that entry of the requested amendments does not raise new issues that would require further search or consideration and would place the application in condition for allowance. Alternatively, entry of the requested amendments would place the application in better form for consideration on appeal.

As a preliminary matter, Applicant notes the Office Action's withdrawal of the objection to the specification and withdrawal of the rejection of claims 4, 5, 6, 8, 12-14 and 16 as being indefinite.

Claims 1 and 9 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 7,209,247 to Iwadate. Claims 2, 3, 10 and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwadate in view of U.S. Patent No. 5,845,057 to Takeda et al. (hereinafter "Takeda"). Claims 6 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwadate. Claims 7, 8, 15 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwadate in view of U.S. Patent Application Publication No. 2005/0024680 to Tanaka.

By this amendment, claims 7 and 15 have been canceled without prejudice to or disclaimer of the subject matter contained therein. The subject matter of canceled claims 7 and 15 has been incorporated into independent claims 1 and 9, respectively. Claim 2 has been amended to improve its grammar. Claims 8 and 16 have been amended to update their dependence and claims 3, 6, 10, 11 and 14 remained unchanged in the application.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier. After amending the claims as set forth above, claims 1-3, 6, 8-11, 14 and 16 are now pending in this application for consideration.

Applicant respectfully submits that each of the independent claims is patentably distinguishable over the cited references as required by § 102 and § 103. Applicant further submits that none of the cited references, whether considered alone or in combination, discloses Applicant's claimed image forming apparatus and method including the feature, step and arrangement of *wherein in the case of the synchronous control, the document image data read by the scanner is stored in the first memory and then, provided to the printer and also compressed by the compression/expansion means and stored in the second memory* as required by amended independent claims 1 and 9. Applicant further submits that none of the cited references, whether considered alone or in combination, discloses Applicant's claimed image forming apparatus and method including the features, steps and arrangements of *judging whether the detected error is a solvable error* and *wherein only the operation of the printer is stopped when the error is the solvable error* as required by independent claims 2 and 10. By contrast, the cited references fail to disclose, teach or suggest these claimed features, steps and arrangements. Accordingly, independent claims 1, 2, 9 and 10 and claims dependent therefrom are patentably distinguishable over the cited references. These distinctions will be further described below.

THE CLAIMS DISTINGUISH OVER THE CITED REFERENCES

Rejections of Independent Claims 1 and 9

In the Office Action, claims 7, 8, 15 and 16 stand rejected as being unpatentable over Iwadata in view of Tanake. With respect to independent claims 1 and 9 which have been amended to incorporate the subject matter of canceled claims 7 and 15, respectively, Applicant respectfully traverses the rejections of these claims, and submits that these claims are allowable for at least the following reasons.

The framework for the objective analysis for determining obviousness under §103 requires:

1. Determining the scope and content of the prior art;
2. Ascertaining the differences between the claimed invention and the prior art;
3. Resolving the level of ordinary skill in the pertinent art; and

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Teleflex, Inc. v. KSR Int'l Co., 127 S. Ct. 1727, 82 USPQ2d 1385 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). In order to establish a *prima facie* case of obviousness, all the claim limitations must be taught or suggested by the prior art. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). See MPEP §2143.03.

Missing Recitations from the Prior Art

Embodiments of the present invention are directed to an image forming apparatus and method. The image forming apparatus according to amended independent claim 1 includes a scanner, a printer, an error detector, a controller, means for setting, means for deciding, a first memory to store image data, a compression/expansion means for compressing or expanding the image data and a second memory to store the image data compressed by the compression/expansion means. The scanner reads a document and provides image data corresponding to a document image, while the printer forms an image corresponding to the image data provided from the scanner. The error detector detects an operating error of the scanner and the printer. The controller stops an operation of the device that cause the error and operates the device only that did not cause the error when the error detector detects the operating error. The means for setting sets an image forming condition and the means for deciding decides whether a synchronous control for operating the scanner and the printer in synchronous with each other for every page of document images is used or an asynchronous control for operating the scanner and the printer in asynchronous with each other is used when forming an image based on the image forming conditions that are set by the means for setting. The image forming apparatus is controlled based on the control decided by the means for deciding.

According to one embodiment of the present invention as recited in amended independent claim 1, in the case of the synchronous control, the document image data read by the scanner is stored in the first memory and then, provided to the printer and also compressed by the compression/expansion means and stored in the second memory. Amended independent claim 9 is substantially similar in scope to independent claim 1 and

includes the same patentable feature and arrangement in the context of a step in an image forming method.

With this feature, step and arrangement, image forming efficiency can be greatly improved even if one of the devices (i.e., the printer or the scanner) malfunctions by continuing the operation of the other functioning device (Specification, page 2, lines 1-5 and page 19, lines 1-16). One exemplary embodiment of the present invention is illustrated in FIGS. 5A, 5B and 7 which shows the synchronous control mode and the various steps, whereby image forming conditions stored in a condition setting table correspond to the normal image forming operations (FIG. 5A), the asynchronous control mode and the various steps, whereby the image formation is carried out in a group mode (FIG. 5B) and the system switching from a synchronous control to an asynchronous control, suspending the printer operation and continuing the scanning operation when a correctable error has been detected (FIG. 7). Applicant respectfully submits that the cited references fail to disclose, teach or suggest this claimed feature, step and arrangement as well as the benefits provided.

The Iwadata reference is directed to a multi-function image output apparatus with error control. The Office Action at page 5 equates Iwadata's copy mode key 603 and printer mode key 605 to the claimed means for deciding the synchronous control or the asynchronous control and references column 6, line 36 through column 7. The Office Action at page 8, further states that although Iwadata discloses the synchronous mode (the function of copying), Iwadata fails to disclose all of the other limitations of the claim. The Office Action then relies on the Tanaka reference to cure this deficiency. Applicant respectfully disagrees.

As a preliminary matter, Applicant respectfully submits that independent claims 1 and 9 have been amended with the subject matter of canceled claims 7 and 15, respectively, to specifically recite what is meant by synchronous control and asynchronous control according to embodiments of the present invention. Synchronous control is defined as ***the document image data read by the scanner being stored in the first memory and then, provided to the printer and also compressed by the compression/expansion means and stored in the second memory.*** Iwadata's copy mode key 603 fails to operate in the synchronous mode because the image data is not stored in the first memory and then sent to the printer as well as compressed

by the compressor and stored in the second memory. Iwadata copy mode key 603 only discloses copying data that may or may not have been stored in a memory device. There is nothing in Iwadata that remotely teaches or suggests simultaneously sending image data to the printer and also compressing and storing the data in a second memory after the data has been previously stored in a first memory. Thus, Iwadata fails to disclose, teach or suggest this claimed feature, step and arrangement.

As stated previously, the Tanaka reference was relied upon for allegedly disclosing asynchronous control and the various system components. Even assuming *arguendo* that Tanaka discloses asynchronous control and the various system components, Tanaka fails to disclose, teach or suggest *in the case of the synchronous control, the document image data read by the scanner is stored in the first memory and then, provided to the printer and also compressed by the compression/expansion means and stored in the second memory* and was not cited for that purpose.

In view of the fact that the cited references, whether considered alone or in combination, do not disclose the claimed feature, step and arrangement indicated above, these references cannot be said to render obvious the invention which is the subject matter of independent claims 1 and 9. Thus, independent claims 1 and 9 are allowable.

Since independent claims 1 and 9 are allowable, claims dependent therefrom, namely claims 6, 8, 14 and 16 are also allowable by virtue of their direct or indirect dependence from allowable independent claims 1 and 9 and for containing other patentable features. Further remarks regarding the asserted relationship between any of the claims and the cited reference are not necessary in view of their allowability. Applicant's silence as to the Office Action's comments is not indicative of being in acquiescence to the stated grounds of rejection.

In sum, one of the requirements of MPEP § 2143 is not satisfied in the Office Action with respect to any of the claims rejected as obvious because the cited references do not teach each and every element of the present invention. Thus, the present claims are allowable.

The Level of Ordinary Skill In the Art has Incorrectly Been Ascertained

KSR did not repeal the *Graham v. John Deere Co.* factors - just the opposite, it reaffirmed them. One of those factors is the requirement that the PTO must resolve the level of ordinary skill in the pertinent art. It is respectfully submitted that the PTO presumes a higher level of skill of the ordinary artisan in this art than was actually present at the time of the invention.

The ordinary artisan would not have had a level of skill sufficient to render the invention obvious to that ordinary artisan. Specifically, before the disclosure of the present invention, the ordinary artisan would not have had the skill to predict that the features of Iwadata could be modified in accordance with Tanaka as is asserted in the Office Action. To the contrary, only the innovator would have had the skill necessary to predict such modification. The ordinary artisan would not have had the skills to arrive at the present invention without instruction from the innovator. The Office Action is silent in regard to addressing the requisite *Graham* factors.

Lack of Sufficiently Articulated Rationale to Modify or Combine the References

The Office Action fails to meet the requirement of providing a sufficiently articulated rationale to combine Iwadata and Tanaka.

The Supreme Court in *KSR* stated that “a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the art...it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *KSR* at 1741. In addition, the Court in *KSR* stated that a reason to combine

elements should be made explicit. *Id.* at 1740-41.¹ Indeed, the Court approvingly cited *In re Kahn*, 441 F.3d 977 (Fed. Cir. 2006), for requiring an articulated reason. *Id.* at 1741.²

Iwadata is devoid of any reason why one of skill in the art would incorporate the teachings of Tanaka into Iwadata. The Office Action states that it would have been obvious to combine Tanaka into Iwadata because doing so would “predictably and advantageously allow for faster and more efficient copying as well as improved memory optimization.” Thus, the proffered motivation, even assuming that the underlying results do in fact occur from general implementation of the teachings of Tanaka does not mean that the ordinary artisan would have combined the references. Instead, the Office Action all but relies on Applicant’s disclosure for motivation to modify the references to arrive at the claimed invention, the Office Action citing nothing in the prior art that provides the specific motivation to modify the references to arrive at the invention as claimed.

Thus, the PTO has not properly articulated a reason for why one with ordinary skill in the art would combine the teachings of Iwadata with Tanaka. Because the PTO has not provided sufficient reasons to combine the teachings of Iwadata with Tanaka, any rejections based on these combinations are improper. Accordingly, the present claims are not rendered unpatentable over the prior art.

Applicant respectfully submits that independent claims 1 and 9 and claims dependent therefrom are patentably distinguishable over the cited references and thus, allowable. Further remarks regarding the asserted relationship between any of the claims and the cited references are not necessary in view of their allowability. Applicant’s silence as to the Office Action’s comments is not indicative of being in acquiescence to the stated grounds of rejection.

¹ “Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit.” *Id.* at 1740-41.

² “Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” *Id.* at 1741.

The Rejections of Independent claims 2 and 10

In the Office Action, claims 2, 3, 10 and 11 stand rejected as being unpatentable over Iwadata in view of Takeda. Applicant respectfully traverses the rejections of these claims, and submits that these claims are allowable for at least the following reasons.

The framework for the objective analysis for determining obviousness under §103 requires:

1. Determining the scope and content of the prior art;
2. Ascertaining the differences between the claimed invention and the prior art;
3. Resolving the level of ordinary skill in the pertinent art; and
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Teleflex, Inc. v. KSR Int'l Co., 127 S. Ct. 1727, 82 USPQ2d 1385 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). In order to establish a *prima facie* case of obviousness, all the claim limitations must be taught or suggested by the prior art. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). See MPEP §2143.03.

Missing Recitations from the Prior Art

Embodiments of the present invention are directed to an image forming apparatus and method. The image forming apparatus according to independent claim 2 includes a scanner, a printer, an error detector and a controller. The scanner reads a document and provides image data corresponding to a document image, while the printer forms an image corresponding to the image data provided from the scanner. The error detector detects an operating error of the printer. The controller suspends the operation of the printer and by operating the scanner only, completes the read of the document when an operating error is detected by the error detector.

According to one embodiment of the present invention as recited in independent claim 2, the image forming apparatus further includes the features and arrangements of: (1) *judging whether the detected error is a solvable error* and (2) *wherein only the operation of the*

printer is stopped when the error is the solvable error. Independent claim 10 is substantially similar in scope to independent claim 2 and includes the same patentable features and arrangements in the context of steps in an image forming method. With these features, steps and arrangements, image forming efficiency can be greatly improved even if one of the devices (i.e., the printer or the scanner) malfunctions by continuing the operation of the other functioning device (Specification, page 2, lines 1-5 and page 19, lines 1-16).

The Office Action states on page 5, that the primary reference of Iwadata discloses each of the claimed features except for judging a solvable error and only suspending the printer operation. The Office Action then relies on the Takeda reference to cure this deficiency. Applicant respectfully disagrees. The Takeda reference is directed to a print processing method for a plurality of printing apparatuses connected to a network (Takeda, abstract, lines 1-4). Although Takeda discloses stop printing based on an error code, Takeda fails to disclose, teach or suggest *judging whether the detected error is a solvable error* and *wherein only the operation of the printer is stopped when the error is the solvable error*. Nothing in the passages highlighted in the Office Action mentions judging if an error is solvable and/or stopping only the printing operation when the error is solvable. Takeda is completely silent with respect to these claimed features. Contrary to the Examiner's assertions, Takeda simply fails to disclose, teach or suggest these features, steps and arrangements.

In view of the fact that the cited references, whether considered alone or in combination do not disclose the claimed features indicated above, these references cannot be said to render obvious the invention which is the subject matter of independent claims 2 and 10. Thus, independent claims 2 and 10 are allowable.

Because independent claims 2 and 10 are allowable, claims dependent therefrom are also allowable by virtue of their direct or indirect dependence from allowable independent claims 2 and 10 and for containing other patentable features. Further remarks regarding the asserted relationship between any of the claims and the cited references are not necessary in view of their allowability. Applicant's silence as to the Office Action's comments is not indicative of being in acquiescence to the stated grounds of rejection.

The Level of Ordinary Skill In the Art has Incorrectly Been Ascertained

KSR did not repeal the *Graham v. John Deere Co.* factors - just the opposite, it reaffirmed them. One of those factors is the requirement that the PTO must resolve the level of ordinary skill in the pertinent art. It is respectfully submitted that the PTO presumes a higher level of skill of the ordinary artisan in this art than was actually present at the time of the invention.

The ordinary artisan would not have had a level of skill sufficient to render the invention obvious to that ordinary artisan. Specifically, before the disclosure of the present invention, the ordinary artisan would not have had the skill to predict that the features of Iwadata could be modified in accordance with Takeda as is asserted in the Office Action. To the contrary, only the innovator would have had the skill necessary to predict such modification. The ordinary artisan would not have had the skills to arrive at the present invention without instruction from the innovator. The Office Action is silent in regard to addressing the requisite *Graham* factors.

Lack of Sufficiently Articulated Rationale to Modify or Combine the References

The Office Action fails to meet the requirement of providing a sufficiently articulated rationale to combine Iwadata and Takeda.

The Supreme Court in *KSR* stated that “a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the art...it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *KSR* at 1741. In addition, the Court in *KSR* stated that a reason to combine

elements should be made explicit. *Id.* at 1740-41.³ Indeed, the Court approvingly cited *In re Kahn*, 441 F.3d 977 (Fed. Cir. 2006), for requiring an articulated reason. *Id.* at 1741.⁴

Iwadata is devoid of any reason why one of skill in the art would incorporate the teachings of Takeda into Iwadata. The Office Action states that it would have been obvious to combine Takeda into Iwadata because doing so would “predictably and advantageously allow the system to better deal with errors.” Thus, the proffered motivation, even assuming that the underlying results do in fact occur from general implementation of the teachings of Takeda does not mean that the ordinary artisan would have combined the references. Instead, the Office Action all but relies on Applicant’s disclosure for motivation to modify the references to arrive at the claimed invention, the Office Action citing nothing in the prior art that provides the specific motivation to modify the references to arrive at the invention as claimed.

Thus, the PTO has not properly articulated a reason for why one with ordinary skill in the art would combine the teachings of Iwadata with Takeda. Because the PTO has not provided sufficient reasons to combine the teachings of Iwadata with Takeda, any rejections based on these combinations are improper. Accordingly, the present claims are not rendered unpatentable over the prior art.

Applicant respectfully submits that independent claims 2 and 10 and claims dependent therefrom are patentably distinguishable over the cited references and thus, allowable. Further remarks regarding the asserted relationship between any of the claims and the cited references are not necessary in view of their allowability. Applicant’s silence as to the Office Action’s comments is not indicative of being in acquiescence to the stated grounds of rejection.

CONCLUSION

³ “Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit.” *Id.* at 1740-41.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date March 26, 2009

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⁴ "Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness" *Id.* at 1741.